The Manitoba Medical Review

Vol. 24 Winnipeg, February, 1944 No. 2

Recent Advances in Tuberculosis Control

By Dr. R. G. Ferguson

Director of Medical Services and General Superintendent, Saskatchewan Anti-Tuberculosis League

In war, as is all too vivid in the memory of everyone present, scientific changes wrought by invention in years and even months render tried and trusted tools obsolete, and may shift effective attack from land to sea, or sea to air. Yet, the fundamental strategy, such as swiftness, surprise, attack and counter-attack have altered little since ancient times.

So, in the campaign against that eternal ubiquitous infectious enemy, tuberculosis, there are factors changing rapidly and fundamental principles of strategy which have not altered since the days of Robert Koch.

Science and invention have provided new and better equipment for the discovery and treatment of the disease; the stethoscope, the microscope, culture media, tuberculin, the x-ray, the photofluorograph for discovery; rest from work, bed rest, temporary lung rest, permanent surgical collapse, surgical resection and pulmonectomy for treatment; but the fundamental strategy of control and eradication of this obstinate and most adaptable of infectious diseases remains unchanged. These are, early discovery, segregation of the infectious host, and increased resistance of unavoidably exposed in every way possible, including vaccination — the common strategy of all infectious diseases.

I need not tell public health workers that little progress has been made in the control of certain acute infectious diseases for which we have no prophylactic, such as measles and mumps, but our experience with tuberculosis during the past generation has shown this disease to be entirely different. Steady progress is being made in its control without a prophylactic where isolation for treatment is being applied.

There are certain important differences between tuberculosis and other respiratory diseases which make it more responsive to isolation. Acute respiratory diseases are almost always accompanied by infectious rhinitis and sore throat, and such cases are without exception infectious. On the other hand, in 75 per cent or more of persons who become infected with tuberculosis there is a small area of lung affected which resolves without rupturing to the surface, and becoming infectious. Moreover, acute respiratory diseases depend for their spread on many cases being infectious for a short period, whereas tuberculosis depends upon a few cases being infectious for a long period. Tuberculosis is a much more slowly developing infection. There is much more time to isolate before the seeds are shed.

Health workers may like to know the early results of this thesis translated into practice. I will now endeavour to set them forth briefly:

1. Where an active programme is pursued and the tuberculous sick are promptly admitted for treatment, and contacts and ex-patients are followed, it has been found that only a small residuum of unknown spreaders remains among the so-called well public. In Saskatchewan with a tuberculosis death rate among the non-Indian population of approximately twenty per 100,000, the unknown spreaders found in all age groups in 100,000 people was one per thousand. Under a similar programme, but with varying death rates, the unknown spreaders might be expected to vary with the death rate. This finding is significant — where the death rate is low and the programme active, the incidence of unknown infectors is very low.

2. Where active segregation for treatment has been pursued, the infection incidence goes down rapidly. Examination of the Normal School pupils in Saskatchewan in 1921 and again in 1941 showed that the incidence of infection indicated by the tuberculin test had fallen from 75 per cent to 15 per cent. This experience would not be convincing if it did not obtain in congested centers of population. In the City of Saskatoon the testing of a cross section of school children has shown that the incidence has fallen from 53 per cent in 1921 to 14 per cent in 1934, and to seven per cent in the Cities of Weyburn and Moose Jaw in 1937. In the City of Saskatoon the evidence among pre-school children, derived from tuberculin testing new entrants to school, nearest age six years, reported by Dr. G. Binning, School Health Officer, shows that in 1936 among 348 entrants 3.16 per cent were positive to tuberculin, and in the same city in 1942 among 340 entrants only one positive reactor was found — less than one-third of one per cent. This evidence tends to show that tuberculosis is an infectious disease that may be reduced to a minor cause of death by the elimination of infection.

3. Segregation of the disease for treatment is the method proven to be effective in the elimination of infection. Beds for treatment are still the greatest need in the campaign against tuberculosis in Canada. Several provinces are short of beds to segregate and treat new civilian cases discovered. Then too, the time is approaching when the army will be demobilized. Health authorities had the experience of the last war as a warning, and have had plenty of time for preparation. Accommodation should now be provided for tuberculosis casualties from the army.

4. A word now about the protection of the unavoidably exposed. The protection of staffs, particularly nurses in general hospitals, mental hospitals and sanatoria, against tuberculosis is a responsibility that rests upon all health workers and particularly on tuberculosis workers. This was an increasing problem in Saskatchewan until recently, notwithstanding new and improved nurses' homes, better food, supervised by dietitians, and better training in infectious technique.

The summarized findings in Ontario by Dr. Brink showed the incidence of active lesions discovered in the period 1937, 1938 and 1939 among nurses in Sanatoria to be 1.47 per annum, and among nurses in general and Red Cross Hospitals to be 0.54 per annum. The problem is acute wherever the incidence of infection is falling.

In the five-year period 1934-1938 in the three sanatoria of Saskatchewan twenty persons among employees entering the service with negative tuberculins developed lesions. During the past 4½ years, since all negative reactors have been vaccinated with

B.C.G. vaccine in the same institutions, only three persons have developed lesions.

Eighteen hundred nurses in training, and exposed hospital and sanatoria employees in Saskatchewan have been vaccinated since March, 1938; in all, ten persons so vaccinated have developed lesions. A provisional report will be made in 1944 on prophylactic vaccination, after five years' experience.

Experience in the vaccination of 432 Indian babies during the past ten years has shown a reduction in the mortality of 75 per cent among vaccinated compared with the controls. This experience tends to confirm the statement of Calmette twenty years ago that B.C.G. was a vaccine affording protection which would reduce mortality by 75 per cent among babies.

Interest in vaccination has been increased by animal experimentation being done with the Vole Acid Fast Bacillus at the Banting Institute. The result of this work is very encouraging as reported in the Canadian Medical Journal, June, 1943 (Irwin & O'Connell).

5. The spread of tuberculosis depends upon a few cases being infective for a long period. The problem where a selective case finding programme has already been established is the economic discovery of the unknown spreaders. Until recently this problem has defied solution.

The invention of the photofluorographic film has provided a means whereby miniature films can be made available in mass surveys at a cost including the salary of doctors and technical staff of fifteen to twenty cents per person. That is a cost of $20,000.00 for the examination of 100,000 people. These films are satisfactory for the selection of definite tuberculosis cases. Persons so selected can be further investigated clinically and radiologically.

The cheapness of this method of discovering unknown spreaders removes at last the financial barrier to case finding, and opens the way for a great advance in the eradication of tuberculosis. There is no city or municipality, small or large, that cannot raise voluntarily the cost of such a survey. It can be raised through the usual medium of Christmas Seals.

The active phase of tuberculosis prevention is at hand. A province can be examined every five years or ten years in accordance with your desire to get rid of tuberculosis.

Photofluorographic surveys do not replace clinical, radiographic and laboratory clinics. These clinics proceed as usual, only loaded up with the responsibility of examining, observing and disposing of the residuum of unknown cases discovered by the wider net, and they will service communities made much more thoroughly tuberculosis conscious because they have organized for co-operation in one of the most difficult feats in health work, the examination of every individual in the community.

In the progress of the reduction of infection in a community or province a stage is reached when it is opportune to alter the objective of the attack from a control to an eradication programme.

As long as tuberculosis infection is universal among the young adults in a community and apparently inescapable, segregation for treatment may be considered largely as curative and cannot be featured as a major preventive attack on the spread of the disease. Under such conditions removal of aggravating secondary causes which reduce resistance to disease are first rate indirect preventive measures applying to the entire population. On the other hand, at the time when infection falls to the point where it is partial only among the young adult population and infection evidently escapable, then a direct attack on infection through segregation for treatment further reduces the level of infection and increases the chance of escape and becomes a highly effective measure of prevention in the protection of the uninfected.

Removal of aggravating secondary causes then becomes operable only in the case of those who have been already infected and is only a partially applicable preventive measure.

Finally, when the minority only are infected in young adult life, segregation becomes the major preventive measure protecting the majority who are uninfected, and removal of secondary aggravating causes becomes the minor preventive measure assisting in the protection of the infected minority.

At this juncture the time is opportune for the institution of the eradication programme.

In this latter phase of an anti-tuberculosis campaign, emphasis should be focused and money spent on segregation, and less emphasis should be placed and less money spent on the control of aggravating causes. In other words, the slogan should be the eradication of tuberculosis by early discovery of spreaders, and by segregation. The people should no longer be lead to believe that they can secure worth while protection by removal of aggravating causes such as poor living conditions, epidemics and other secondary predisposing causes.

In health work, as in agriculture, methods of eradication vary in accordance with the prevalence and noxiousness of weeds. The people of Canada know that tuberculosis is a bad weed, a perennial that sheds its seeds from year to year. When these weeds or cases are sparse, the best practice is to find them and remove them before the seeds are shed.

To do this, everyone must learn to identify tuberculosis in the seed, in the sprout, in the flower, or in the ripe shelling. This is why preventive education should be pursued as never before in the schools, in the normal schools, in families and communities, and throughout Canada generally.

Read before the Canadian Public Health Association Convention in Toronto in October.

Medical Happenings in February

Luncheons

3rd, Thursday, 12:30, Winnipeg General Hospital.
8th, Tuesday, 12:30, Misericordia Hospital.
10th, Thursday, 12:30, St. Boniface Hospital.
15th, Tuesday, 12:30, Grace Hospital.
17th, Thursday, 12:30, Winnipeg General Hospital.
22nd, Tuesday, 12:30, St. Joseph's Hospital.
24th, Thursday, 12:30, St. Boniface Hospital.
25th, Friday, 12:30, Victoria Hospital.

Winnipeg Medical Society

18th, Friday, Regular Meeting, Medical College, 8:15.
25th, Friday, Medical History Section, Medical Arts Club Rooms, 7:30.

Tumor Clinic

Winnipeg General Hospital, Every Wednesday, 9 a.m.
St. Boniface Hospital, Every Tuesday, 10 a.m.

Ward Rounds

Every Thursday, 11 a.m., Children's Hospital.

Special Meeting

March 1st, Dr. W. Penfield, Theatre A, University, 8:30.

Rule Book Diagnosis of Heart Disease

By John M. McEachern, M.D., F.A.C.P., F.R.C.P. (C)

The editor has asked me to write a few words on some subject which might interest you. Such informal articles by better hands than mine might come as a welcome relief from those in some four pages of quasi historical notes dating from Sydenham's time, one doubtful case history by the author, and then an interminable bibliography which no one ever looks at. Perhaps a few thoughts based on experience in teaching and practice may not be amiss.

I have been appalled at the trend of students and practitioners toward rule of thumb diagnosis in heart disease. I mean by this that too much emphasis is placed on some sign or symptom (such as heart murmur) with no regard whatever to other signs or even to the patient.

This trend has been accentuated by the standardization obviously necessary in the examination of recruits for the armed services. I have no quarrel with the little red and blue books issued by the Army and the Air Force. They have **one** purpose only and that is to serve as a coarse (sometimes an extremely coarse) sieve to filter out recruits who are likely to become unfit in active combat.

To follow these rules or similar ones with slave-like devotion in actual practice, either on service or in civil life, will destroy all initiative on the part of the physician and break the spirit, confidence and hopes of many of his patients.

Classification According to Etiology

The diagnosis of heart disease may be greatly simplified if one remembers the three great etiological groups which comprise 95% of all organic heart cases. The heart disease of youth and middle age is usually due to rheumatic fever; that of middle age to syphilis; that of later life to the degenerative diseases, namely, coronary sclerosis, hypertension or emphysema. These last and rheumatism are the chief causes of cardiac disability. Of the three common types, rheumatism roughly comprises 40% of the cases; syphilis 10% and the degenerative lesions 50%.

In deciding whether a patient has organic heart disease or not, a careful history is of great importance. A history of rheumatism, chorea, syphilis, arteriosclerosis, hypertension, asthma, chronic bronchitis or pulmonary sepsis will help greatly in the decision. The symptoms and signs of organic heart disease should be clearly remembered. There may be no symptoms at all in the presence of advanced cardiac disease. Symptoms most frequently appear with diminishing cardiac reserve.

There are only two really important symptoms, namely, dyspnoea and substernal pain. There are many causes of breathlessness. There is the sighing respiration of the neurotic who states that she has difficulty in taking a deep breath. There is the type due to mechanical interference with respiration, say by a large goitre.

Breathlessness on exertion, however, is usually due to heart disease, obesity, physical unfitness or emphysema. Many conditions may cause pain over the heart. Not long ago I compiled a list of twenty-two causes of chest pain at times simulating cardiac disease, ranging from fibrositis and herpes to arthritis of the spine. Left pectoral muscle sprain is frequently misinterpreted as "heart strain". Radiation of pain down the arms is not diagnostic of coronary disease. About all it signifies is that the disease is not below the diaphragm. (Oille.)

The pain of coronary disease (angina pectoris) is substernal, intermittent, occurring only on exertion or excitement and may be referred to the jaw, the neck, the arm or the little finger. The degree of exertion required to bring on the pain is remarkably constant in a given case.

An increase in the size of the heart as measured by the position of the apex beat is a valuable sign of organic disease. One must remember that the apex beat may also be displaced by fluid in the right pleural cavity and atelectasis of the left lung, conditions easily recognized on physical examination. Of the important physical signs denoting real cardiac disease, one might mention:

1. Enlargement of the heart.
2. Presence of a thrill over one of the valvular areas.
3. Presence of a serious disorder of the heart beat such as auricular fibrillation, flutter, heart block or pulsus altermans.
4. Changes of an organic nature in the X-ray or the electrocardiogram.
5. Diastolic murmurs.

When we consider murmurs **entirely by themselves,** there are only two which are of any clinical importance.

1. The diastolic murmur of aortic regurgitation which replaces the second heart sound in the second left interspace.
2. The diastolic murmur of mitral stenosis.

No one can describe these to you. You must learn them like a "dog's bark." Aortic regurgitation may even be diagnosed without the stethoscope. All other murmurs are most commonly physiologic, and should simply spur the physician on to exclude organic heart disease by looking for its more definite signs (such as enlargement of the heart).

Hundreds of young people are being labelled as heart cases these days, causing them untold suffering and a great increase in anxiety states. In the majority, the physical findings are of no significance. We sadly need another Sir James MacKenzie to "debunk" the picture books.

The foolish emphasis placed on heart murmurs has led many physicians to feel that without the most intimate knowledge of murmurs they are lost. I repeat that there are only two which are diagnostic by themselves. There are some systolic murmurs which are significant, **but only** if accompanied by cardiac enlargement or a thrill, or some other **definite** sign of organic trouble.

The indiscriminate use and abuse of the electrocardiogram is also a source of considerable confusion in the diagnosis of heart disease. This delicate instrument is a useful adjunct at times, as is a blood count. It is of value in confirming one's opinion as to the nature of an irregularity of the heart beat. It is also a great help in the diagnosis of coronary disease, particularly following a coronary thrombosis. Apart from these specific uses, its curves must be interpreted with extreme caution and never without some knowledge of the patient. Remember that the record may be quite normal in certain cases of advanced cardiac disease. The above is not an argument against the electrocardiogram, but one in favor of careful interpretation.

It was implied earlier that the stethoscope has almost become a snare and a delusion in the diagnosis of heart disease. We hear too much with it, and misinterpret much that we hear. How different from early tuberculosis, where most often we hear nothing and the X-ray shows all.

In the presence of a **definite** valve lesion in an ambulant patient, one must ask oneself several quessions. Firstly, is there any active infection, such as an active rheumatic carditis lurking in this heart? Is there any bacterial endocarditis? If not, our next thought should be to assess the functional capacity of the heart muscle. What can this man's heart do? Has he any breathlessness on exertion? If there is no active infection, little dyspnoea on exertion, and no anginal pain, he may be encouraged to carry on a useful life, except at hard labor.

How many cardiac mental cripples we see in this class? Young lads kept in bed for months with simple valve lesions. "Ah," we say, "but he has a tachycardia when he gets out of bed." So would we all, I fear, if we were kept in bed in a constant state of fear and anxiety. I well remember the case of a fear-ridden banker who was seen seven years ago. The diagnosis was Bundle Branch Block made by Doctor Electrocardiograph during a routine examination. He had been on sick leave for a year, afraid to turn over in bed. Clinical examination was quite negative. There never had been any symptoms. He had a sheaf of electrocardiograms made in every city from Montreal to Vancouver. These he cherished and gazed at with a sad eye. With encouragement and reassurance this man was eventually rehabilitated. He has been at work ever since and walks three or four miles daily. He probably had one small scar in the course of the bundle and the rest of the heart was quite healthy.

In our dependence upon mechanical methods for diagnosis we have lost touch with the master physicians of half a century ago. I remember well a story of Sir James MacKenzie. A dapper and distinguished surgeon was giving a clinic on a patient about to be operated upon. The question of the operative risk came up. As Doctor MacKenzie approached, the surgeon said, "And now, gentlemen, you will learn how to really examine a heart. Doctor MacKenzie is going to tell us whether this patient's heart will stand the operation."

MacKenzie stood at the foot of the bed and asked the patient:

"What is your occupation?"

"A caretaker, sir. Of a six-storey block."

"Do you ever become short of breath going up those stairs?"

"No, sir!"

"Do you have any chest pain making your rounds?"

"No, sir!"

MacKenzie turned to the surgeon, "This man's heart is functioning well. He will survive." With that he turned and walked away.

The Role of Plasma Proteins in Surgery

By Richard O. Burrell, M.D., L.M.C.C., Ch.M., F.R.C.S. (Edin.), F.R.C.S. (C)

There has been a growing interest in the past few years in the part played by the plasma proteins in the body economy. This has been further stimulated by the increased use of plasma and by the appearance on the market of amino acid solutions prepared by the acid hydrolysis of casein which may be given parenterally.

There are four plasma proteins: thrombin, fibrinogen, globulin, and albumin:

Thrombin exists only in traces and, except as it affects the clotting of blood, is of no apparent importance.

Fibrinogen also has to do with the clotting of blood. Normally it is present in only small amounts (.3 gms. per 100cc.) but tends to rise in various infections and is the supposed basis for increase in the sedimentation rate. The failure of fibrinogen to increase in these conditions indicates extensive liver damage. Depletion of fibrinogen by haemorrhage is apparently of no great importance, at least not clinically, because it is so rapidly replaced by the liver.

Globulin plays a small part in the maintenance of the osmotic pressure of the plasma but its chief function is probably to increase resistance to infection by the production of immune bodies. Each 100cc. of plasma contain approximately 2.0 gms. of globulin. It may be synthesized in the reticulo-endothelial system or possibly in the liver.

Albumin is by far the most important blood protein and practically all the clinical and physiological effects of hypoproteinaemia are due to its loss. Each 100cc. of plasma contain in the neighborhood of 4.5 gms. of albumin. Thus it is almost twice as abundant as globulin, the normal ratio being 1.7 - 1.0. It has also by far the smallest molecule and because of these factors it is responsible for about 85% of the osmotic pressure of the blood. Also because of its small molecule it is readily diffusible and is the most readily lost into the tissues or by way of the kidney when this organ is damaged.

The relationship of tissue protein to blood protein is roughly 1:30. That is in protein starvation or feeding for every gram of protein lost or gained by the blood, 30 grams are lost or gained by the tissues. This ratio indicates the impractibility of seriously attempting to restore the blood proteins by plasma infusions except as an emergency measure. This ratio does not apply in the hypoproteinaemia experimentally produced in animals by plasmapheresis, in which the tissue and plasma proteins are almost completely removed. There the ratio is approximately 1:5, but such a condition is never seen clinically.

Hypoproteinaemia manifests itself in many ways. For example it may appear as shock or collapse after severe haemorrhage, extreme surgical manipulation or burns. Here the rate of production is rapid. In peritonitis or in intestinal obstruction of the strangulating variety the hypoproteinaemia is of slower onset. Chronic protein starvation or liver damage produces a gradual hypoproteinaemia.

Many of these manifestions may exist in combination and there are likely others inaccurately established, the known important ones are:

1. **Surgical Shock,** clinical manifestations are due to a loss of albumin into the tissues. This lowers the osmotic pressure of the blood and increases that of the tissues so that further fluids simply flow into the tissues and the blood volume remains low. The actual loss of protein is not great and if the patient could survive he would easily restore the blood protein from the tissue stores. Here exogenous protein must be given and it must be in the form of plasma as it is the albumin molecule which is required. The amino acids must be synthesized into albumin and are not seriously depleted in any case so are not needed. Circulatory impairment may appear acutely as in surgical shock and less acutely in conditions such as acute peritonitis or strangulating obstruction or after operations. This requires large amounts of plasma for its relief and the plasma must be given

rapidly—often through two or three needles. The weak heart action may make one hesitate for fear of overloading the circulation but actually the apparent weakness of the heart is due to an under-loaded circulation and calls for more rapid injections in larger amounts. Any existing protein depletion will increase the tendency to surgical shock.

2. **Suppression of urine,** complete or in a less degree, is a fairly common post-operative finding and often in spite of adequate intravenous infusion. Except in cases of known renal disease this is invariably due to the lowered osmotic pressure of the blood, which cannot bring the tissue fluids to the kidneys because of hypoalbuminaemia. Intravenous fluids remain in the tissues and give rise to the so-called "salt oedema". This is actually hypoproteinaemic oedema exaggerated by the ill-advised administration of parenteral fluids.

3. **Haemoconcentration,** may be due to dehydration but it is often due to plasma loss as for example in burns, in post-operative shock, in intestinal obstructure and in peritonitis. One not infrequently hears a surgeon stress the small blood loss of an operation by stating that the haemoglobin was higher two days after the operation than it was before. Such a finding calls for immediate investigation for it may indicate a dangerous hypoproteinaemia.

4. **Abdominal distention** is, of course, due to swallowed air which is neither absorbed nor forced along the intestinal tract. This lack of movement of intestinal gases may be due to the ileus, either dynamic, adynamic, or spastic, but it can also be due to hypoproteinaemia. The lowered osmotic pressure of the blood allows the plasma to flow into the intestinal wall. This flow is further increased by intestinal manipulation and by enteroanastomoses which latter not uncommonly becomes obstructed by intestinal oedema. This oedema can be relieved only by restoring the blood proteins. But intestinal obstruction of itself produces hypoproteinaemia particularly when the obstruction is of the strangulating variety. Here there is a local plasma loss into the bowel wall as is evidenced by the oedema of the intestinal wall seen at operation. There is also a plasma loss into the lumen of the bowel and into the peritoneal cavity. This primary hypoproteinaemia starts a vicious circle permitting greater oedema of the bowel wall which further depletes the blood proteins until the patient goes into circulatory failure if he does not first die of the obstructive toxaemia and electrolytic imbalance.

5. **Oedema,** of hypoproteinaemic origin is known as nutritional-oedema to differentiate it from the other types, although it is not necessarily due to inadequate protein intake. Approximately 10 litres of extracellular fluid must accumulate before a pitting oedema is clinically demonstrable, so that hypoproteinaemic oedema is a late manifestation of protein depletion. It is noticed first in the scrotum and the evelids and in dependant parts. There is no absolute blood albumin level at which oedema becomes apparent but it is in the neighborhood of 30 gms. percent.

2. **Ascites,** is a very rare manifestation of hypoproteinaemia, a fact which helps to distinguish nutritional ascites from constrictive pericarditis and other causes. I mean, by this, that ascites in a young person is rarely due to nutritional oedema. On the other hand there are now many recorded instances of the relief of cirrhotic ascites by intravenous administration of amino acids providing the liver is not too severely damaged. This is all the more remarkable because such therapy can have no possible effect on the increased portal pressure.

7. **Faulty wound healing,** is influenced by many other factors; but, other things being equal, hypoproteinaemia is the most common single cause of faulty healing or wound disruption. This is borne out by the increased incidence in operations upon the stomach where presumably there is a preoperative and post-operative protein starvation.

We see then that the chief dangers of hypoproteinaemia are:

1. Increased tendency to surgical shock.
2. Tendency to suppression of urine.
3. Failure to recover from obstruction though the cause has been relieved.
4. Inadequate nitrogenous balance.
5. Faulty wound healing.
6. Exposure of the liver to increased damage.

In this last connection it has been shown by Boyce and others that the protection from damage offered to the liver by adequate glucose intake is more than doubled by adequate protein intake.

7. Faulty nutrition.

The Causes of Hypoproteinaemia, are important because by knowing them we can often suspect its presence or predict its occurrence. There are only four possible causes.

1. **Nutritional**—By far the commonest cause and often unsuspected, it occurs in actual starvation due to economic reasons and in those who for some reason or other are put on low protein diets or to whom protein is distasteful. Hypoproteinaemia, or hypoalbuminaemia to be more exact, because the fibrinogen is not affected, begins immediately upon the cessation of protein intake, as tissue proteins for practical purposes do not protect the blood albumin. The decreased protein intake affects the liver so as to cause a defective albumin synthesis and thus further hypoalbuminaemia.

2. **Excessive loss of plasma protein** is a well recognized cause which is seen in haemorrhage and acute surgical shock. In such cases the loss is rapid and ingestion of protein for replacement is useless; it must be replaced parenterally in the form of plasma which contains the albumin molecule. When the protein loss is due to peritonitis and intestinal obstruction the urgency is not so great and here amino acids can be used intravenously. A more chronic form of excessive albumin loss is seen in nephrosis. This will respond to oral feedings.

3. **Excessive nitrogen loss** occurs in severe surgical infections and should always be watched for in these conditions. It is a constant accompaniment of the increased metabolism of hyperthyroidism and while important in itself, is also important because it leads to liver damage. The modern treatment of acute hyperthyroidism therefore requires maximum amounts of protein in addition to the usual lugol's, fluids, glucose, sedation and oxygen. This, in spite of the specific dynamic action of protein.

All injuries, including operative trauma and burns, produce an increased nitrogenous excretion leading to hypoproteinaemia in addition to the plasma loss into the tissues at the site of the injury. Thus post-operative hypoproteinaemia arises in part from true surgical shock and in part from excessive nitrogenous loss. This excessive nitrogenous excretion reaches its peak about the eighth post-operative day and must be considered in the administration of protein during this period.

4. **Defective albumin synthesis.** The liver metabolizes amino acids and likely plays some part in the synthesis of albumin because liver damage is associated with hypoalbuminaemia. To enhance this effect is the anorexia which frequently accompanies almost all hepatic diseases increasing the hypoproteinaemia.

The diagnosis of hypoproteinaemia. In the first place it can usually be suspected by the clinical manifestations and by a knowledge that one or more of the known causes has been in operation. Many cases can be treated on this basis alone—viz., surgi-

cal shock and intestinal obstruction and protein starvation.

Definite evidence can be afforded by plasma protein determinations. These should always be accompanied by a haemotocrit reading because normal protein levels may be found in concentrated blood when there is an actual hypoproteinaemia.

Treatment of Hypoproteinaemia

When protein can be given by mouth, this is the simplest though not necessarily the quickest or best method. A high protein diet is used, usually 150 gms. or more daily. This is obtained by the use of skimmed milk, which can be taken in larger amounts than whole milk, lean meats, egg white and hydrolysed casein, which is the ideal though the most expensive method. Amino acids produced by the acid hydrolysis of casein can be given orally in large quantities and, of course, is readily absorbed.

If oral protein feedings are not feasible, it may be given parenterally as plasma or intravenous amino acids. Plasma is used in the acute conditions in which the albumin molecule is urgently required, namely, haemorrhage, shock, and some cases of obstruction. As said before, it must be given early, rapidly, and in large amounts. A failing circulation need cause no fear from overloading. We have given as much as 7 litres in 12 hours which is more than twice the total plasma volume.

In the more acute or chronic hypoproteinaemia, because of the depletion of tissue proteins, plasma is not necessary, nor is it ordinarily effective because it is too dilute and too much is required. This is the ideal indication for intravenous amino acids. It is the most effective treatment for post-operative hypoproteinaemia. It is on the market in at least two brands. Both are 15% solutions so that 450cc. will supply 70 gms. of protein which is sufficient to maintain nitrogenous equilibrium in a 70 kilo. man. In post-operative hypoproteinaemia more than this is required both to raise the blood protein and to make up for the excessive nitrogenous loss that takes place during that period. We have given as much as 1300cc. which equals 195 gms. of protein in twenty-four hours. It is unnecessary to supply the full caloric requirements to a post-operative patient as the body fats can do this and as their loss is of no importance and they can supply more calories than any other food. Some intravenous glucose should be given however with the amino acids as it spares the amino acids for albumin synthesis and helps to prevent the ketosis of fat metabolism. The intravenous amino acids are relatively cheap and will likely prove to be as great a boon to modern surgical treatment as was the continuous duodenal suction in 1932 or intravenous electrolytes a few decades before.

The basis of this summary is an excellent article in the S.G.O. of June, 1943, with occasional reference to Wright's Physiology, Boyce's excellent monograph on the liver, and a personal communication from Dr. J. P. Peters of Mount Sinai Hospital of New York.

Case Report

Paroxysmal Ventricular Tachycardia

By A. L. Shubin, M.D.

Paroxysmal ventricular tachycardia is a rare condition. It is usually associated with serious structural heart disease, generally coronary thrombosis. It may be persistent or intermittent. It can be suspected by direct clinical observation; slight irregularities in the rhythm, alterations in heart sounds. The first heart sound will occasionally vary in intensity, it may be louder with some beats and reduplicated in others due to the varying positions of auricular systole in the cardiac cycle. The jugular pulse will show fewer auricular beats than the ventricular rate as counted over the precordium. Simple measures such as pressure on the eyeballs and pressure on the carotid sinus have no effect. The electrocardiogram can establish the diagnosis definitely. Digitalis is contraindicated. Quinidine is the drug of choice; it is effectual because the arrythmia is in all likelihood caused by a circus movement in the ventricles. Potassium chloride as an adjunct to quinidine has been used with success in some cases.

Case Report

The patient, a female aged 47, was admitted to the hospital on October 18th, 1943, complaining of dyspnea, pain in the precordium and the right side of the chest, palpitation, weakness, chills and sweating.

Six days prior to admission she had a tooth extracted under local anaesthesia; she felt nauseated that day. Three days prior to admission she felt a sharp stabbing pain in the precordium and the back of the chest on both sides, the pain was worse whenever she took a deep breath. At first this pain was in the form of a severe ache but was constant and stabbing on inspiration. In the evening she had a severe chill which was followed by profuse sweating. She did not go to bed, continued to do her housework, but had to sit around a lot due to weakness. Past History: Measles, mumps, scarlet fever. Thrombophlebitis of the left thigh following labor in 1926, abscess of the right breast in 1928. Family history negative. Menstrual history: menstruation started at 15, menopause at 41. Gravida 13.

Physical Examination

Obese woman, slightly dyspneic with face flushed. Right side of face in the parotid area is enlarged. General physical examination was negative. Temperature 102.2, pulse 80, the next day the temperature and pulse were normal.

On October 22nd, the temperature went up to 99.6, pulse 90, then returned to normal. Blood pressure 120/90. The acid test for mumps was negative.

The roentgenologic examination of the chest showed that the diaphragms were normal. Some generalized enlargement of the heart. Long roots were heavy. The right lung field was clear—the left lung showed some emphysema. Urinalysis: Specific gravity 1.022, acid; microscopic examination showed a marked trace of hyaline and granular casts. Leucocyte count 23,650, Polymorphs 80%, Basophils 4%, Lymphocytes 16%.

Patient was discharged from the hospital on October 25th. The diagnosis at that time was emphysema of the lungs, and pleurisy.

On November the 4th, she was readmitted to the hospital complaining of severe pain in the epigastrium radiating upwards into the left chest, and downwards along the right costal margin and to the back of the chest for four days. At first the patient had intermittent attacks of epigastric pain; attacks came on when knitting—she also had some nausea. Yesterday she had her worst attack; she had a sharp agonizing pain in the right upper quadrant radiating upwards to the precordium and posteriorly to the back, felt very nauseated and a feeling of impending death. The attack lasted for 20 minutes, she had three similar attacks but not as severe during the night. She also complained of flatulence coming on

especially after eating fried or rich food, slight cough and palpitation.

She was sent in to the hospital for a cholecystectomy, a diagnosis of biliary colic was made because of a history of periodic attacks of biliary colic for 17 years. The patient was dyspneic, radial pulse imperceptible, apex beat 180 per minute, blood pressure, systolic 80, diastolic 40, respiration 32 per minute, vomiting periodically. Leucocyte count 15,500. Polymporphs 74%, Lymphocytes 26%. Sedimentation rate plus 2. The urine test was negative for urobilinagen. A cardiogram was taken which showed the following: rate 168, rhythm irregular, no P waves discernible. QRS 0.14 seconds, bizarre, slurred and notched. **Diagnosis:** Paroxysmal Ventricular Tachycardia. Morphine gr. ¼, atropine gr. 1/150 was given several times but no relief was obtained. Quinidine gr. 1½ was given as a test dose but she vomited it up. Patient kept complaining of "gas" around the heart.

On November 6th, papverine gr. 1½ in 500 ccs. of saline was given intravenously, patient had several hours of sleep following that and felt much better, vomiting stopped. At 5 p.m. quinidine gr. 3 was given intravenously, then quinidine gr. 6 every four hours, the tachycardia still kept up.

On November 8th a second intravenous injection of gr. 1½ papaverine in 100 ccs. of saline was given. A second cardiogram taken showed: rate 132, no P waves, QRS 0.20 seconds—notched and bizarre. **Diagnosis:** Paroxysmal Ventricular Tachycardia.

On November 11th, quinidine gr. 12 every four hours was given and a third intravenous injection of papaverine gr. 1½ in 100 ccs. of saline was given for restlessness.

On November the 12th at 10 a.m., pulse rate changed suddenly to 76, patient was put on quinidine gr. 6 every 6 hours as a maintenance dose.

A cardiogram taken showed: rate 80, rhythm regular, P-R 0.24 seconds, QRS 0.08 seconds, QRS1 is diphasic S type, QRS3 diphasic Q type. QRS2 is splintered, QRS slurred in all leads. ST4 and ST5 are depressed. T2 and T3 are deeply inverted coronary in type. T5 is low, diaphasic. **Diagnosis:** 1. Recent myocardial infarction posterior wall type. 2. A-V block 1st degree.

On November 17th at 9.50 a.m. patient fainted, became cyanosed, apex beat was 88, respiration ceased 25 minutes later. **Post-Mortem Findings:** Gall Bladder normal in size, wall was thin without active inflammation, the sac was filled with pea-sized dark brown stones. Heart is enlarged, 510 grams, organ evidently dilated and soft. Coronary sclerosis marked. Posterior surface of the left ventricle shows an elongated infarcted red area, but deeper layers are of a dull yellowish color. **Anatomical Diagnosis:** Cholelithiasis and coronary sclerosis with infarction of left ventricle wall.

Summary

1. A case of myocardial infarction which was first diagnosed as pleurisy then as biliary colic.

2. Two weeks following the occlusion, while up and around, the patient developed Paroxysmal Ventricular Tachycardia.

3. It required large doses of quinidine to change the mechanism to normal. Quinidine slowed the pulse gradually by increasing the intraventricular block. At the beginning the pulse rate was 168 which slowed down to 132.

4. Papaverine intravenously was found to be very soothing.

5. Coronary occlusion should be considered in the differential diagnosis of pleurisy and biliary colic.

Bibliography

1. Levine, S. A. Clinical Heart Disease. W. B. Saunders, 1938.
2. Leaman, W. G., Jr. Management of the Cardiac Patient. J. P. Lippincott and Co., 1941.
3. Conger, W., and Laurence B. Ellis. Archives of Internal Medicine. February, 1943.
4. Stempein, S. J., and Katz, K. H. American Heart Journal, October, 1942.

Hospital Luncheon Program Reports

Grace Hospital

Jan. 18, 1944.

The Medical Superintendent reported total births for the year of 1809. The number of confinements was 1,799. The maternal mortality for the year was **one,** i.e., a maternity mortality rate of .05. This was a case of bad varicose veins with a phlebitis on admission who developed a pulmonary embolism. The Superintendent's conclusion is that if women wish to live and be healthy they should bear children! Other departments of the hospital showed a very healthy increase in the amount of work done.

Two subjects were discussed:

1. Dr. Lamontagne reported a case of Primary Uterine Inertia in which a spinal anaesthetic was administered. The result was a very quickly dilating OS and rapid delivery. The post-partum course of the mother was entirely uneventful and the child did well. This was thought to be the first case to be treated in this way in Winnipeg, and was therefore of considerable interest. Much discussion followed by Drs. Best, S. Kobrinsky, Boyd McTavish and others.

A second discussion was presented by Dr. S. Kobrinsky, on Toxaemias of Pregnancy, which seem to be ever with us. The concensus of opinion seemed to be that these should not become alarming if the patient and her medical attendant will closely co-operate.

F.A.B.

St. Boniface Hospital

Jan. 13th.

Basal Temperature in Cylic Women—Dr. R. O. Burrell

Dr. Burrell said that the presence or absence of ovulation could be determined by basal temperature as accurately as by vaginal smears or endometrial biopsy. Under normal conditions the rectal temperature is low (about 97) before ovulation and elevated (98.8 - 99.2) afterwards. The presence or absence of an ovular sterility can thus be easily determined. The patient takes her own temperature immediately on waking and records it.

Oxygen Therapy—Dr. R. O. Burrell

The causes of anoxia and the indications for oxygen treatment were enumerated. The B.L.B. mask was demonstrated and its various advantages discussed. It was stressed that this mask far surpasses all other apparatus in economy and effectiveness.

Misericordia Hospital

Jan. 11th.

Herniation of Jejunum Into Paraduodenal Space
Dr. A. Wilson

A woman of 65 was awakened at 2 a.m. with abdominal pain and vomiting. The pain was not intense and the vomiting, though frequent, was not greatly distressing. At 6 p.m. she was seen by Dr. Wilson who found the pain in the right lower quadrant with rigidity but no tenderness. The temperature was 99°. Acute appendicitis was diagnosed and the woman sent to hospital. A leucocyte count done there showed 16,000 cells, 65% polymorphs. At operation the appendix was found to be normal but the ileum was seen to be collapsed. The bowel was followed until the jejunum was revealed, buckled and tucked into paraduodenal space. Some difficulty was encountered but eventually the herniated gut was released. The recovery was uncomplicated. The notable feature was the indications of appendicitis and the absence of shock despite the site and long continuance of the obstruction.

Combination of Neurogenic Sarcoma and Leuknemia
Dr. J. P. George

A year ago Dr. George was consulted by a man of 45 who was complaining of aching in one leg. There were no physical signs. Recently this patient developed influenza for which he was hospitalized. The leg was uncomfortable but two swellings were visible, one in front of, and one behind, the bones of the upper part of the leg. Each was about the size of an orange. X-ray showed them to be continuous and linked by a neck which occupied the space between tibia and fibula. Because of the patient's appearance a blood count had been done. This showed 192,000 white cells, mostly lymphocytes. The question was: could the leuknemia and the tumour be associated? There was no adenitis or other enlargement. It seemed unlikely that the tumour was due to leuknemia and histological diagnosis of the removed growth was neurogenic sarcoma. (An interesting follow up note is given three weeks later: Following a suggestion of Dr. Trainor on the use of sulphathiazole in leuknemia, 40 grains of the drug were given daily.) The last blood count was: Reds, 4,350.000, H.B. 75%; Whites, 34,000, a drop of 158,000.

J. C. H.

Winnipeg General Hospital

The Spontaneous Regression of Ovarian Tumour Following Splenectomy
Dr. Warner and Dr. McQueen

Mrs. W. Aged 69. Scottish.

Admitted to the public ward with a diagnosis of an unknown abdominal mass, with a history of 8 days' illness.

On admission white cell count was 7,150, with 72%lymphocytes, red cells 4,000,000 and haemoglobin 60%. One week later white cells were 7,900, red cells 4,000,000 and haemoglobin 66%.

After some discussion amongst the various services, this patient was assigned to gynaecology with a diagnosis of ovarian cyst, possibly malignant.

At operation a spleen weighing 2,000 grams was removed (normal 200 grams). Post-operative course was uneventful.

Dr. Nicholson said this spleen was a leuko-sarcoma. This is a low grade malignancy and this spleen was atypical in the pathological picture as on the clinical side. Dr. Nicholson is sending slides to the spleen clinic in New York.

Sedimentation Rate During the Puerperium
Dr. McQueen and Dr. Coghlin

Dr. Coghlin, resident in Gynaecology and Obstetrics, showed a graph of the sedimentation rate in 100 normal pregnant women before delivery, 24 hours after delivery, 48 hours, 96 hours, and on discharge. This was a very nice original piece of work. This was of value in getting a normal to compare the value of sedimentation rate in abortion.

In discussion of this problem Dr. Fred McGuinness thought a sedimentation rate would be of value over a sufficient number of cases of the first three months of pregnancy.

Fixed Drug Eruption — Dr. A. R. Birt

Jan. 20, 1944.

Male. Age 32. Veteran of Dieppe.

Admitted to the General Hospital on January 11, 1944, with a history of cough for five days and pain in chest for one day.

He had a number of spots scattered over the body the size of a quarter.

Briefly, of some 200 drugs, there are 3 types of drug eruption:

1. Morbiliform.
2. Acne type.
3. Fixed type, that is, after the skin lesion fades if the drug is given again which caused this lesion the same anatomical area of skin is involved.

Arsenic, phenophthalien, salicylates and amidopyrin may cause fixed drug eruption.

For 3 months this patient had been taking 8 to 9 tablets of Midol (phenacetin grains ½ and salicin grains 4).

These skin lesions were thought to be caused by amidopyrin, but if so the patient must have had an old supply of Midol. At present Midol does not contain amidopyrin.

Doctors Ormerod and Hunter took part in the discussion.

Fracture of the Femur — Dr. D. Nicholson and Dr. W. A. Gardner

Considerable new light has been thrown upon the healing of fractures during the past 5 years. Dr. Nicholson gave details of the healing process at the site of fracture and reviewed the usual causes of non-union. He demonstrated a mounted museum specimen showing good reduction but fibrous union of a fracture of the neck and a femur with a well placed Smith Peterson nail in position. Sections of the bone showed marked osteoporosis and deposits of secondary adenocarcinoma in and around the fracture. As a cause of non-union secondary carcinoma may be readily overlooked.

Regarding the spread of abdominal or breast carcinoma he gave a brief account of the vertebral system of veins. When radio opaque substance is injected into the dorsal vein of the penis it spreads into the bones of the pelvis, the vertebrae and heads of the femurs. This is the usual mode of extension for carcinoma of the prostate. Similar injections into veins of the breast spread to the surrounding breast tissue, intercostal veins, vertebrae, heads of humerus and femur.

Dr. A. W. Gardner stated that this patient, a female past middle age, had the fracture reduced and a Smith Peterson pin put in place to hold it about 3 months before her death. This patient had a carcinoma involving the liver which was unsuspected at the time the hip was fractured. He showed a series of X-ray pictures illustrating successful bony union both with the Smith Peterson nail, and also with high osteotomy. He showed others in which the union was fibrous and commented on the causes.

Dr. Murray added to the discussion, relating some highly amusing incidents regarding patients he had treated.

Familial Lumbo-Sacral Syringomyelia—Dr. L. G. Bell

A female, 14 years old. In 1937 she noted sensory changes in hands and feet. At this time sweat would pour off ankles and feet. At present feet are dry; the hands drip perspiration almost continually (hyperhydriosis). Since 1937 she has had swelling and discharge from feet with painless indolent ulcers. These abscesses have been opened on occasions and several of the terminal phalanges have dropped off on their own. Two major diseases give trophic changes similar to the above—Tabes and Syringomyelia. In Syringomyelia changes occur in the cervical segment of the spinal cord. This is a rare type of Syringomyelia and 80% are familial in origin. A younger brother of this girl is going through similar changes. Early cases of Syringomyelia may be benefited by radiation. It is known the classical type of Syringomyelia is not painful. As soon as the zone of altered sensation remains stationary the question of a double amputation of the feet must be considered. Until the zone of anaesthesia remains stationary one could not amputate as pressure sores would develop if an amputation were done in an anaesthetic zone.

Those contributing to the discussion were as follows: Drs. Gardner, McKinnon, James, Waugh, Moorehouse and Nicholson.

Winnipeg Medical Society—Notice Board

C. M. Strong—*President*
P. H. McNulty—*Vice-Pres.*

Next Meeting February 18th

W. F. Tisdale—*Secretary*
H. M. Edmison—*Treasurer*

"Some follow Letters, others follow Law,
And some take their delight in war's alarums;
But he upholds the glory of the saw
And wields his weapon with titanic arms."

By whom and about whom these lines were written I have forgotten except that both were Dubliners. I imagine the surgeon was an exponent of that specialty which requires for its practice an intimate knowledge of the gentle arts of the blacksmith, the carpenter and the plasterer. In other words, he was an orthopedist. All of which is by way of introduction to the fact that the January meeting was addressed by three bone specialists.

Orthopedic Surgery shows what happens to irregular practice when it goes to college and becomes respectable. The "fons et origo" of orthopedics is bone setting. The father of orthopedics — Hugh Owen Thomas—was the son, the grandson and the great-grandson of lay bone-setters. To make a certain analogy more pointed, his father was for a time a blacksmith.

In their native Llanfarryghornwy the Thomases were referred to as meddygon esgyrn, which is what you would expect bone-setters to be called in a place named Llan, etc. Evan, Hugh Owen's father, migrated to Liverpool, where after a post-graduate course in a foundry he went into practice. He flourished there and was three times the recipient of public honors, in every case after his acquittal for malpractice and quackery. Both Evan and his wife were very devout, and Hugh as a child spent many hours with his mother reading and discussing sermons, the Bible and the poets.

When he was 17 Hugh Owen was apprenticed to his uncle, who was a doctor. Three years later he went to the University of Edinburgh, where he studied and maintained himself on ten shillings a week. His teachers included Syme, Spence and Simpson, and Lister was house surgeon. After two years in Edinburgh he went to London and took his degree. He then returned to Liverpool and went into practice with his father.

The association of regular and irregular practice was not a happy one. Hugh Owen was accomplished in his father's technique but sought to alter it in accordance with his more accurate knowledge of the body. As a result we find him a year later practicing alone as medical officer to the members of, ultimately, 28 different societies. He had no hospital connections, the result of his partnership with his father, and he had to remodel a house as a small nursing home.

Hugh Owen's patients were mostly laborers, iron-workers, deck hands and the like, the sort most prone to suffer from bone injuries. He had to devise and make the appliances they needed, and so he built a workshop where he could fabricate these. For the reception of his patients he required four offices, two waiting rooms and his hospital.

Hugh Owen was a general practitioner, and a busy one at that. His day began at six and he regularly visited twelve patients by the time he broke his fast at nine. Then he took off ten minutes for a cup of tea and two bananas. Between nine a.m. and two p.m. he saw, examined and treated at least thirty and often forty-five patients in his consulting rooms. He spent twenty minutes at lunch and then devoted the afternoon to consultations and operations. A few minutes sufficed for his third meal, after which came an hour in his consulting room and an hour and a half on visits. At 9.30 he went to his workshop, where he was busy until midnight.

Sunday differed from the other days only by being busier. He conducted on this day a free clinic and he saw from two hundred to three hundred patients who came from far and wide and filled the house, and even the street. Only on Sunday evening did he take a little rest. Then with his wife he spent the time in music. He played the flute, she the piano. Together they sang the old Welsh airs and pieces from the operas of which he was very fond.

From his appointment books we learn that in a typical week he saw 16 fractures of the long bones; 5 compound fractures; 3 cases of intestinal obstruction, many deformities, malformations, joint ailments and the usual run of medical ailments.

Daily he saw ninety patients, every one of whom he himself treated. Examinations, operations, splintings, dressings, all were done by him. Yet this human dynamo, who of all doctors of all time must have been the hardest worker, was a slight frail thing. His parents almost despaired of his survival as a child. He was always delicate. He was only 5 feet 4 inches tall. His rounds were made in a phaeton, built by himself and painted a vivid scarlet, drawn by two coal black horses. Apart from work his one addiction was the cigarette—a novelty at the time. He was never without one, even when he was examining and treating his patients. Thomas died at the age of fifty-seven, and if it be possible for the spirit of a man to pass into his work, he still lives in the specialty he created.

★

What does Labor think of the Health Plan? What do the farmers want? These questions are most important and for our own sakes we must know the answers. Well, you will have an opportunity to get these answers at first hand at the February meeting. Dr. Bruce Chown is arranging to have a representative of the Trades and Labor Council, and one of the Manitoba Federation of Agriculture address the Society at its February meeting. There will likely be a good deal of discussion which should be illuminating and helpful. (Date, February 18.)

★

The speakers who discussed what may be called the grosser aspects of surgery were Major L. Walker, Dr. A. P. MacKinnon and Dr. K. C. McGibben. Major Walker was unable to attend and his paper was read by Major Perrin. It was a comprehensive review of the modern methods of treating compound fractures. Dr. MacKinnon spoke on joint ailments and gave a very useful chronological guide to their recognition. A number of the audience asked him for a copy, but better than that, everyone will have a chance to get it because it will be published in these pages next month. Dr. McGibben, rising from a sick bed to give his paper, dealt with sub-achromial bursitis and its successful treatment by injection of novocaine. The 52 cases he reported had uniformly done well. We expect to include this also in the next issue.

Remember, we have a rendezvous in Rome on the 25th. On that evening and with Gerard Allison as our guide the Medical History Section will visit the Eternal City. Despite his quiet and studious exterior I have a suspicion that Gerard harbours a morbid taste for the horrible and I would not be surprised if he took us into some of the more gruesome spots of medieval torture. There will certainly be a bit of psychopathology if he brings in the Twelve Caesars. Of course we shall hear about the doings of Galen whose books were standard texts for thirteen hundred years. But we may be sure that whatever he chooses to deal with will be handled well and so we invite you to come

Simplified DAILY RATIONAL VITAMIN THERAPY

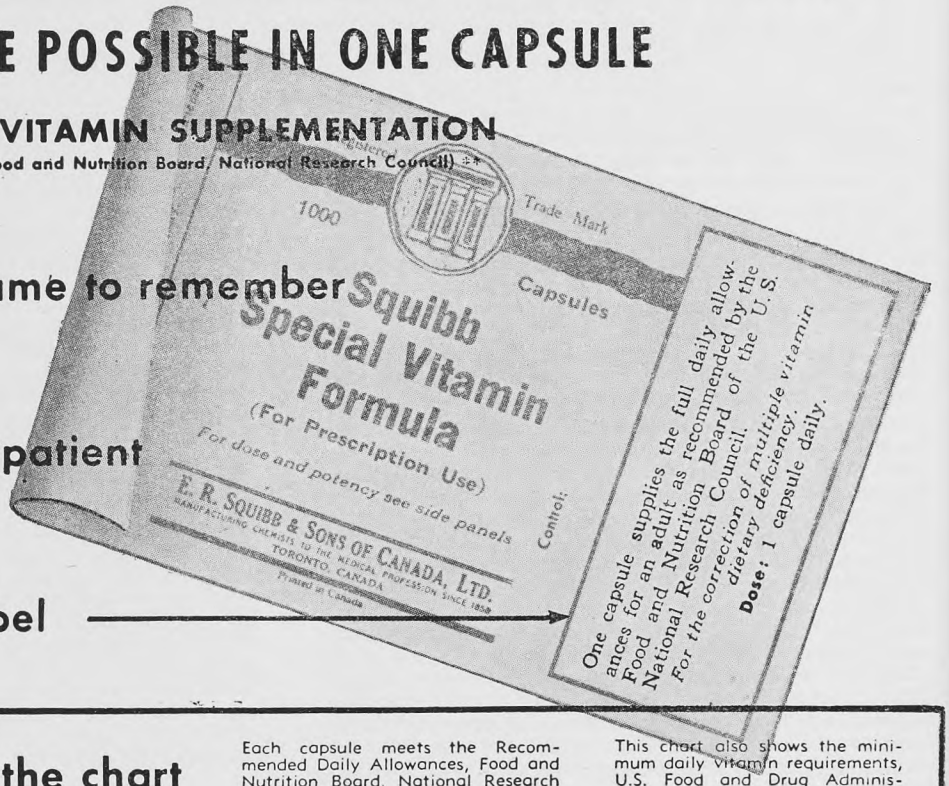
NOW MADE POSSIBLE IN ONE CAPSULE

The OPTIMAL VITAMIN SUPPLEMENTATION
(recommended by the Food and Nutrition Board, National Research Council) **

No trade name to remember

Low cost to patient

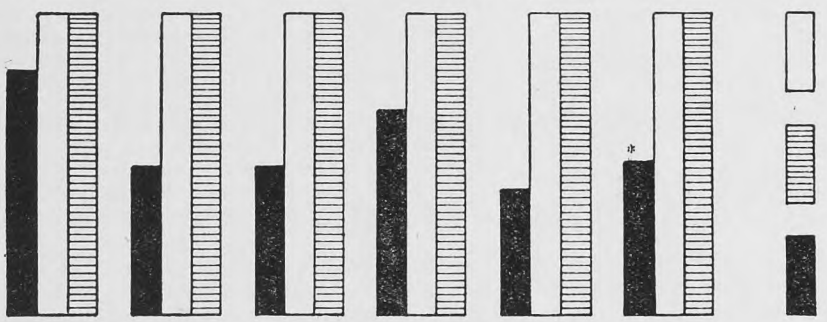
Note the label



Check with the chart

Each capsule meets the Recommended Daily Allowances, Food and Nutrition Board, National Research Council.

This chart also shows the minimum daily vitamin requirements, U.S. Food and Drug Administration.



= Optimal daily allowance (adult) as recommended by the Food and Nutrition Board of the National Research Council*.

= Supplied in ONE SQUIBB SPECIAL VITAMIN FORMULA CAPSULE.

= Minimum daily requirements U. S. Food and Drug Administration.

**J.A.M.A. 116:2601, June 7, 1941.

*Not yet official.

and here is something *NEW* in Ethical Vitamin Therapy

1. Squibb Special Vitamin Formula Capsules are sold to druggists in bulk. The druggist does not have to stock packages of various sizes. In fact, there are none.

2. Prescribe for a patient whatever number of capsules for whatever period you wish.

3. Druggists generally will fill your prescription at the same cost per capsule whether you prescribe 10 capsules or 100—generally about six or seven cents per capsule.

4. Vitamin therapy with Squibb Special Vitamin Formula Capsules is not expensive. The Squibb Laboratories have done everything possible to keep the cost low . . . to encourage prescription of a multivitamin preparation . . . to keep the control of vitamin therapy where it belongs—under the supervision of the physician with the collaboration of the druggist

For full particulars write—
36 CALEDONIA ROAD, TORONTO, ONT.

E·R·SQUIBB & SONS OF CANADA, Ltd.

MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858

Editorial

I like the bill-of-fare we are setting before you in this issue. We are very grateful to Dr. Ferguson for his paper. Dr. Ferguson ranks high among the distinguished sons of Manitoba, and it is definitely an honor to have him as a contributor. There is a great deal of pleasure and profit awaiting you if you have not yet read Dr. McEachern's article. Both matter and manner are so apt that he cannot fail to drive home his point. Dr. Burrell shows how close should be the contact between the bedside and the laboratory, and how a knowledge of physiology as well as of anatomy is necessary for good surgery. Dr. Shubin's case report conveys useful information in the concentrated and practical form of an individual instance.

★ ★ ★

A news item in the press recently told the story of a little boy who had been refused further supplies of plasma because those which he had used had not been replaced. A big Boston daily had then gone into action and in a short time lined up 130 donors. I suppose the hospital and the doctors were represented as cold-blooded Scrooges. The fact that the child had chronic nephritis and was only wasting the plasma would not carry much weight. The same thing might happen here. More to the point, some one who really needed it might have to go without because supplies were exhausted. Here, then, is a topical comment plucked from the notice board of St. Boniface Hospital:

Our blood bank is being depleted down to a dangerously low level; the reason is fundamental and applies to all banking institutions: too much money going out and not enough deposits. In our case we do not want gold, but we insist on our pint or quart of blood, otherwise we will soon have to close the doors of our bank; it happens too often that blood withdrawn from bank is not replaced. The remedy is simple: all we need is co-operation of doctors who can help us by explaining the situation to the patient and insisting that blood be replaced soon after transfusion. Once the patient has left the hospital and tears of gratitude have dried up, it will be too late! "You cannot get blood out of a stone!" As one should beat the iron while it is hot, one should also collect blood while it is warm, and the best time is NOW!

We wish to remind doctors also that blood transfusions should not be charged to Workmen's Compensation Board; this has happened lately, and they disputed the bill and refused to pay, claiming that in case of a Compensation patient the same routine procedure should be followed as in any other private case if a blood transfusion is given, that is, blood should be replaced by voluntary donors, either relatives or friends.

Thanking you for your kind attention!

The Department of Pathology,

J. PRENDERGAST.

Since November 1 to December 15, 1943

Blood not replaced by discharged patients, 12,100 c.c.
Blood not replaced by patients in Hospital, 8,150 c.c.

Total ..... 20,250 c.c.

Dr. George Victor Bedford

Even to us who see it so often, death comes with a fresh shock every time it takes a friend. Already with the New Year less than a week old one of our number has followed in the same sudden way that so many have gone. I have heard him say that he feared a sudden death less than a lengthy illness, and I think he knew when he said it that a quick end might be in store for him.

He had not been feeling well for some months but his appearance scarcely showed it. On the morning of his death he tussled with his car and finally took a bus down town. He was ill when he dismounted and asked a stranger to help him. He had a block to walk and had only a few yards to go when he collapsed. He was carried into the building but died almost before a doctor could be found.

George Bedford's death was tragic but was not without its consolations, both for him and his family. Death came swiftly, almost before he knew it, and the memory he left must be a comfort to those who miss him most. Glen Hamilton once said that the messages he received spoke of meanness and selfishness as being the chains that held spirits earthbound. Be that as it may, George Bedford had neither. He was the soul of generosity. He was kind to a degree. He was, I think, most kind to those from whom he could hope for little more than gratitude. He never forgot a favour and more than repaid it when he could. His sincerity was beyond question. He had a strict sense of ethics. He was fond of his students and went to great trouble, and even expense, in order to give them the best he could. He was himself a diligent student and took infinite pains to serve his patients well. His cheery manner and friendliness endeared him to many. These things, and the fact that he had the respect of all his colleagues, must lighten the grief of his widow and his daughters, to whom goes the sympathy of the whole profession.

J. C. H.

★ ★ ★

March 1st is a date to keep open, for upon the evening of that day we shall have an opportunity to see and to hear Dr. Wilder Penfield. Dr. Penfield will be in the city to take part in the Post-Graduate Course and has agreed to speak to the profession at large. His subject most likely will be Soviet Russia, about which he can say more than he has written. The meeting will be held in Theatre A, University Buildings, and will be under the auspices of the Post-Graduate Committee.

Dr. Penfield's address will undoubtedly increase the growing interest in Russian medicine. So tremendous have been the achievements of the Russian soldiers in the field of battle that we are prepared to accept the most extravagant news about advances in the field of science. We hear of a serum that will extend the span of life far past the century mark. We read, with a little shudder, of dead bodies furnishing tissues for use by the living. We hear that out of every hundred casualties only two die and nearly ninety go back into battle. The role of women, we are told, is a principal one, for in some colleges three-quarters of the students are women. Methods are reported that save most patients suffering from conditions that two years ago were always fatal.

For the most part our information comes to us through the lay press, but now those who are interested can get the information at first hand in the pages of the American Review of Soviet Medicine, which can be borrowed from the Medical Library.

Obituaries

Dr. Harry Morton Murdoff

Dr. Harry Morton Murdoff died in the Winnipeg General Hospital on January 1, 1944, in his 66th year. Born in Picton, Ontario, he received his early schooling there and then came to Winnipeg as a young boy. In 1905 he graduated from Manitoba Medical College and spent a year as interne in the Winnipeg General Hospital. His post-graduate experience was gained in London, Johns Hopkins University, and other medical centres. He became a Fellow of the American College of Physicians, a demonstrator in clinical medicine in the University of Manitoba, and a member of the medical staff of Winnipeg General Hospital from 1915 to 1928. Later he became chief of medicine in the Misericordia Hospital, and at the time of his death was honorary chief of medicine there. He is survived by his widow.

In his early years he was interested in sport and was goal keeper of the medical college hockey team, but an injury to his knee prevented further active participation. He was an able diagnostician, particularly of neurological conditions, and had a wide circle of friends.

★ ★ ★

Dr. George Victor Bedford

Dr. George Victor Bedford, of Winnipeg, died suddenly on January 6. He was born August 31, 1887, at Emerson, where his father was a pioneer physician. As a young man he was an expert baseball pitcher. He graduated from Manitoba Medical College in 1912 and practised at Morden, at first in partnership with the late Dr. B. J. McConnell. In 1916 he proceeded overseas as M. O. to the 61st Battalion and later was on the staff of Granville Canadian Military Hospital at Ramsgate. In 1917 he returned to Winnipeg and held an appointment in Tuxedo Military Hospital until 1921. In 1919 he became demonstrator in therapeutic medicine in the Faculty of Medicine, University of Manitoba, in 1928 demonstrator in medicine, and in 1930 lecturer in medicine. In 1926 he took a post-graduate course in dermatology in London and since then has practised that specialty. From 1931 till his death he was associate dermatologist to the Winnipeg General Hospital.

He is survived by his widow and two daughters.

His athletic figure and courtly manners distinguished him. He was keenly interested in some of the unsolved problems of his special field of medicine and did some original work, especially in connection with psoriasis.

★ ★ ★

Sodium Citrate for Lead Poisoning

Kety and Letonoff (Am. J. Med. Sc. 1943 205:406 state that citrate dissolves tertiary lead phosphate and forms a compound with extremely low dissociation. They administered 4 grams sod. citrate in an ounce of water thrice daily to 15 patients. This caused a marked fall in the blood lead, and there were no toxic effects. Two of four colic patients were relieved immediately by 50 ccs. 2.5% solution sodium citrate intravenously. F.G.A.

—— o ——

Correction: My careless proof-reading is to blame for an egregious error in connection with Dr. Frank Macneil's presentation last month. "Drowned Lung" is associated with bronchial Obstruction. There is no Destruction. Therein lies the crux of Dr. Macneil's argument. J. C. H.

Returns from Questionnaire Mailed October 1943

Re: National Contributory Health Insurance Act

The figures shown following the questions are the affirmative answers received.

Are you in favor of the National Contributory Health Insurance Act being administered in this province by:

(a) The Department of Health? 167.

(b) Under an independent Commission responsible to the Lieutenant-Governor in Council? 142.

(c) That is, each and every Commission functions under the auspices of some department of Government and, as there are in the Government the Department of Health, Attorney-General, Agriculture, Labor, etc., to which of these departments do you wish that this Commission be affiliated? 87 Dept. of Health, 2 Attorney-General.

2. Do you wish payment to the practitioner under this Act to be on the basis of:

(a) Fee for service rendered? 245.

(b) Fee by capitation per annum with limited panel? 33.

(c) Annual salary? 46.

(d) A combination of any of the above in certain districts? 127.

3. (a) Do you favor the general practitioner continuing to practise medicine, surgery and obstetrics in the province as he has done up to now, according to his competence? 248.

(b) Do you wish major surgery and major medicine and obstetrics to be practised only by certified specialists? 58.

(c) Do you favor that medicine should be practised as at present, patients to have free choice of qualified and registered medical practioners? 253.

4. In hospitals that derive revenue from the provisions of this Act, are you in favor of their being open to all medical men practising under this Act? 297.

5. Are you in favor of a University Teaching Hospital, as a distinct entity, being set up under the provisions of this Act? 194.

6. Are you in favor of the present teaching hospitals continuing their teaching facilities also in conjunction with the University Unit? 279.

7. Have you any suggestions to offer regarding the men in the Armed Forces?

(a) Should the implementation of the Act be deferred? 159.

(b) Should the Act be re-opened after demobilization if implemented before? 142.

Replies Received from City Doctors 68%
Replies Received from Rural Doctors 72%

Due to Wartime Restrictions the returns from the Armed Forces are incomplete.

Returns from Questionnaire Mailed to Practitioners of Greater Winnipeg Oct., 1943, Re: Unemployment Relief Question

105 Favor Termination of Agreement with City of Winnipeg and Municipalities of Greater Winnipeg.

13 Do not favor Termination of Agreement.

Returns from Questionnaire Mailed to Practitioners of Greater Winnipeg Jan. 6, 1944, Re Manitoba Medical Service

120 Favor implementation of local Health Insurance Plan without Income Level.

17 Favor Income Level.

★ ★ ★

College of Physicians and Surgeons of Manitoba

Circular to Licensed Narcotic Wholesalers and Retail Druggists

Gentlemen:

An Order in Council has been passed, and published in the Canada Gazette, adding Demerol to Part I of the Schedule of the Opium and Narcotic Drug Act. Under the law, this Order in Council becomes effective on January 24th next, i.e. thirty days after its publication in the Canada Gazette, and from then on Demerol will be administered in precisely the same manner as Morphine, Cocaine and other scheduled narcotics.

The exact wording of the addition to the Narcotic Schedule is as follows:

(11) Ethyl 1-Methyl-4-Phenylpiperidine-4-Carboxylate hydrochloride, under whatever trade name it may be offered for sale or sold, for example, Demerol, Dolantin, Pethidine.

Yours faithfully,

C. H. L. SHARMAN,
Chief, Narcotic Division.

CASE NO. 1

Adolf Schickelgruber.
Male.
Aryan.
Paperhanger.
Age 52.

PAST HISTORY

Progressive paranoia and withdrawal from reality began to develop at an early age. Morbid hereditary stigmata identified as—illegitimate birth, chronic costive condition, hypotrophy of the genitals, were the causes.

Patient managed himself well until the onset of the first period of subjective-analysis, which developed during a term of imprisonment following an alcoholic debauch and hysterical exhibitionism in the Rathskeller, Munich, 1923.

Psychosis characterized at this time by egotism, variable moods and eccentricities, aggravated by homosexual frustration. There were systematized delusions of persecution and megalomania until the patient finally (1933) posed as a reformer. Megalomaniac stage appeared about 1938 accompanied by criminal tendencies.

HISTORY OF PRESENT ILLNESS

All past symptoms have become markedly pronounced in the past few years. There is a new and extreme chromophobia, evinced in the patient's great sensitivity to Red. Other symptoms centre on claustrophobia with periods of delirium, when patient appeals for 'lebensraum'. There is a previously unobserved trait of the paranoiac, known as russo-geophagia. Common instabilities such as fugue (wandering into cold eastern climes) and semitic hemophobia, are present.

SUMMARY OF POSITIVE FINDINGS

I. Severe depression.
II. Extreme loss of weight and emaciation.
III. Spasm of right deltoid and flexors of forearm during which time patient mutters 'heil hitler'.
IV. Ankle clonus when walking, accompanied by spasm of the quadraceps femoris.

DIAGNOSTIC IMPRESSION

Manic-depressive psychosis with marked paranoid tendencies.

TREATMENT

Shock treatment (Churchill) and bilateral cerebral lobectomy.

Association Page

Why Doesn't Someone Do Something About It?

It would seem fairly obvious that at the cessation of hostilities we may never see, or at least not for many years, the lush conditions of '38. Just what effect will this have upon the medical profession? Can the followers of Aesculapius who will be leaving the Forces look forward to the orderly medical advance as outlined by Osler as "Bread . . . Bread and Butter . . . and after middle life . . . Cakes and Ale." Or will he join the Government Medical Service with bread and butter secure for the remainder of his days and, with some favored few, reach the Cake and Ale stage in an administrative capacity? The answer to this $64.00 question is not available, there being too many unknowns in the picture.

One fact is certain. As a profession we must pull up our socks and agree upon a programme that will allow the doctor of the future to practice medicine under conditions that will allow him reasonable security and freedom.

We see many references in the press about the "Pie in the Sky" type of health that will result from National Contributory Health Insurance or from some form of state medicine. To date, no accurate records have been brought forward to show that there is an improvement in the health of the people in areas served by some form of health insurance over that of people whose medical needs are taken care of by individual practitioners. The proponents of municipal doctors cite the advantage of this type of practice over competitive medicine. In the controversy, one fact has been missed, viz: that the municipal service is only a partial medical coverage. Many of the difficult or hopeless cases drift to the cities to swell urban morbidity and mortality. It is open to argument whether or not one of the main reasons for municipal doctors is economic. The financial impact of illness is spread over the community without being a burden upon any one individual.

In a pamphlet put out by the Research Bureau of the Canadian Pharmaceutical Manufacturers' Association, there are some 68 paragraphs devoted to the subject "Health Insurance for Canada." Might I recommend sections 67 and 68 for your perusal. What will avail a super medical service dealing with patients living in "bad housing with its poor ventilation, its inadequate protection against winter cold and its lack of sanitary conveniences?" An important cause contributing to physical unfitness and the frequent spells of sickness from which many people suffer, is the inadequate income on which they have to live. Poverty can be one of the worst of all disease-breeders. Its attendant evils of undernourishment and malnutrition are not only sickness in themselves, but they pre-dispose their victims to every kind of infection to which they happen to be exposed. To people in that class, medical care with hospitalization can at best provide only a temporary escape from sickness, for when they are forced to go back to the old way of living, the improvement they made under medical care is quickly lost.

Which brings us to our heading WHY DOESN'T SOMEONE DO SOMETHING ABOUT IT? A number of leftist writers assemble various medical half truths. These semi-medical facts are given wide publicity. It is their hope that continued repetition will cause these quasi truths to be accepted as the final word. Here is an opportunity to every doctor practicing medicine. Use some 15 minutes on your daily visits to point out to your favorite patient the dangers of half truths in medicine. Insulin and Penicillin were evolved under competitive medicine. The practice of medicine today is not perfection but should we scrap a system that is easily amended for a radical change which is, to say the least, untried?

"Were half the power that fills the world with terror,
Were half the wealth bestowed on camps and courts,
Given to redeem the human mind from error,
There were no need for arsenals or forts."

If half the money proposed under National Contributory Health Insurance were devoted to preventive medicine and assisting diagnostic and treatment centres in sparsely settled areas, would not the results equal Federal Health Insurance with less confusion?

The profession in Manitoba must contact daily at least 3,500 patients. What an opportunity to point out that Medicine is not an octogenarian with a rheumy nose, edentulous, swathed in red flannel, sitting by the fire waiting for the end, but as modern as a jet propelled plane ready to move in the van of the brave new world.

Your Executive is slowly trying to evolve a programme, with your help, that will meet new conditions. In this struggle we need everyone's help. The next time you see your colleague train his bazooka upon organized medicine and say "WHY DOESN'T SOMEONE DO SOMETHING ABOUT IT?" challenge him at once and say, "Brother, what have you done today to help the situation?"

To those who haven't read pages 67-68 of the January issue of the C.M.A., your Executive earnestly recommend their perusal. Under the heading "Methods of Payment under Health Insurance." In an orderly manner are shown the advantages, disadvantages and comments upon the following methods of payment under Health Insurance — fee for service — capitation — salary. D.C.A.

★

The following is an extract from an address by the late Dr. D. A. Stewart, Medical Director, Sanitorium Board of Manitoba:

"Time is not life; it is only the raw material that life can be made of. Every moment of emptiness or mere twirling of thumbs is a moment lost out of life. The measure of life is not the days of the calendar or hours of the clock, but the fullness and joy of the days, and the fruition of the hours. Hundreds of lazy turtles basked in tropical suns and hundreds of sleepy crocodiles wallowed in cooling ooze in the same few hours of the clock while Oliver Wendell Holmes wrote the Chambered Nautilus or Nelson fought Trafalgar. But these flaming souls lived more of life in one intense moment than the hundreds of somnolent saurians in countless centuries.

"It has been said in criticism of hospitals where chronic diseases are treated that patients come into them men and go out cabbages, that they come in perhaps with bad lungs and go out with better ones, but with backbones lost, or go out with improved stomach function but less character or pep.

"What does this mean? Does it mean that a hospital should have two main ideas, one the mending up of bodies, the other the care of people as people, their social relations, the use of their time, their living of life, their liberty and happiness? I think it does. Does this not seem a broad conception of hospital duties? Where there is no medical science bodies do badly, it is true, but where there is no vision the people perish."

Personal Notes and Social News

Lieut.-Col. E. Hartley Smith, R.C.A.M.C., Debert, N.S., and Mrs. Smith, 86 Tache Ave., Norwood, are happy to announce the birth of a daughter on January 5th, 1944, at the Winnipeg General Hospital.

★

Surgeon-Lieutenant S. O. Dowling has left for the East Coast where he has recently been posted.

★

Dr. and Mrs. M. R. Hudson, of Quyon, Que., announce the birth of a daughter on December 23rd, 1943, at Ottawa, Ont.

★

Dr. I. H. Mazerovsky has changed his name to I. H. Mazer. At present he is serving with the R.C.A.M.C. with the rank of Captain.

★

Major K. J. Austman, R.C.A.M.C., of Petawawa, Ont., spent a short leave with his family, 191 Rupert's Land Ave.

★

Captain L. P. Gendreau, R.C.A.M.C., now stationed at Montreal, Que., has been promoted to the rank of Major.

★

Captain Lawrence Guy Alexander, R.C.A.M.C., won the Military Cross for performing outstanding service on an invasion barge as M.O. during the raid at Dieppe.

★

Captain A. D. Bracken has been transferred from A22 Royal Canadian Army Medical Training Centre, Camp Borden, Ont., to No. 2 Company, R.C.A.M.C., Toronto.

★

Captain John R. Matas, formerly a member of the Selkirk Mental hospital staff, who enlisted in the British army in 1941, then in March, 1942, was transferred to India, has been promoted to the rank of Major.

★

The Executive and Members of this Association wish to express their deepest sympathy to Dr. J. R. Martin, of Neepawa, Man., on the loss of his wife, Catherine Elizabeth, who died January 13th, 1944.

★

Pte. Jamie H. W. Hutchinson, R.C.A.M.C., and Mrs. Hutchinson, whose wedding took place on Dec. 27th in Convocation hall, McMaster University, Hamilton, have arrived to make their home temporarily in Winnipeg, where Pte. Hutchinson is completing his internship at the Winnipeg General Hospital prior to taking up his duties with the R.C.A.M.C.

Dr. R. Hayward, formerly of Ethelbert, Man., is now practicing in Winnipeg.

★

Dr. J. S. Holowin, formerly of Elphinstone, Man., is now practicing at Morris, Man.

★

Dr. A. Landry, formerly of Morris, Man., is now practicing at St. Jean Baptiste, Man.

★

Dr. J. C. Rennie, of Portage la Prairie, Man., has been presented with the Vellum vote of thanks on behalf of the St. John Ambulance Association in recognition of the assistance he has given in furtherance of first-aid instruction in Portage la Prairie. The certificate was signed by His Excellency the Governor-General the Earl of Athlone.

★

Dr. F. A. Benner was re-elected chairman of the Child Health Services Board at the 1944 inaugural meeting.

★

Drs. E. H. Alexander, I. H. Beckman, F. D. McKenty and E. J. Washington have registered and will attend the Continuation Course in Otolaryngology being held by the University of Minnesota in the Curtis Hotel, Minneapolis, February 7th to 11th.

★

The marriage of Captain George Edward Wakefield, R.C.A.M.C., son of Mr. and Mrs. William Wakefield of Winnipeg, to Helen Patricia, eldest daughter of of Mr. and Mrs. E. D. Manning of Kenora, Ont., was solemnized January 22nd, in Knox United Church, Kenora. After the ceremony Capt and Mrs. Wakefield left for a trip to the West Coast.

★

Dr. G. S. Baldry has joined the R.C.A.M.C. with the rank of Captain. He left Winnipeg on January 26th for Brockville, Ont., where he will take advanced training.

★

Colonel Lennox Arthur, now of Vancouver, was a recent visitor to Winnipeg. While here he renewed acquaintance with his many friends.

★

Dr. W. A. McElmoyle, formerly of 116 Medical Arts Building, has decided, for reasons of health, to make Victoria, B.C., his future home and field of practice.

★

Captain H. W. Chestnut, R.C.A.M.C. (U. of M."40"), has been awarded the Military Cross for conspicuous gallantry and exceptional devotion to duty during an attack near Salerno, Italy, on September 26th, 1943.

★ ★ ★

Department of Health and Public Welfare

Comparisons Communicable Diseases—Manitoba

(Whites Only)

DISEASES	1943 Dec. 5 to Dec. 31	1943 Nov. 7 to Dec. 4	1942 Dec. 3 to Dec. 31	1942 Nov. 5 to Dec. 2	TOTALS Jan. 1 to Dec. 31,'43	TOTALS Jan. 1 to Dec. 31,'42
Anterior Poliomyelitis	----	3	2	4	37	67
Chickenpox	343	325	417	266	2043	2534
Diphtheria	19	33	24	30	272	262
Diphtheria Carriers	4	13	2	7	39	39
Dysentery—Amoebic	----	----	----	----	7	----
Dysentery—Bacillary	----	----	1	3	18	15
Erysipelas	6	9	2	9	74	91
Encephalitis	----	----	----	1	10	39
Influenza	120	51	19	19	576	239
Measles	38	50	43	17	2792	4405
Measles—German	----	----	3	----	171	266
Meningococcal Meningitis	1	4	1	1	36	25
Mumps	177	170	277	137	3679	3203
Ophthalmia Neonatorum	----	----	----	----	----	1
Pneumonia—Lobar	11	8	13	9	169	115
Puerperal Fever	1	----	----	----	4	2
Scarlet Fever	204	156	55	70	1601	1289
Septic Sore Throat	7	2	2	1	49	63
Smallpox	----	----	----	----	----	----
Tetanus	----	----	----	----	2	3
Trachoma	----	----	----	----	3	5
Tuberculosis	33	26	32	58	592	572
Typhoid Fever	1	----	2	2	23	35
Typhoid Paratyphoid	----	----	----	----	3	3
Typhoid Carriers	----	----	----	2	2	3
Undulant Fever	1	----	2	1	9	14
Whooping Cough	39	78	120	128	1831	702
Gonorrhoea	112	137	*	113	1670	1257
Syphilis	45	67	*	56	578	696
Actinomycosis	----	----	----	----	1	----
Meningococcal Meningitis Carriers	----	----	----	----	6	----

* NOTE: Re Gonorrhoea and Syphilis for 1942. During the year 1942 these diseases were reported in 12 monthly periods; in 1943 there are 13 four-week periods, consequently there are no figures for the last four weeks of 1942.

Meningococcal Meningitis, 18 cases in Ontario and 15 in Minnesota. It is surprising that Manitoba has not had more. It should be watched for — see Dr. Bruce Chown's article in the last Review.

Diphtheria, 19 cases in Manitoba — far too many.

Scarlet Fever is quite prevalent in Manitoba and Ontario. This is the season of greatest incidence. Strict isolation of cases is necessary to prevent spread of this disease.

Influenza was not well reported but seems to have been epidemic almost all over the Province. Apparently it has passed its peak and is back to its usual incidence.

It is interesting to compare the figures for 1942 and 1943.

DEATHS FROM COMMUNICABLE DISEASES

November, 1943

URBAN — Cancer 38, Pneumonia (other forms) 11, Tuberculosis 7, Pneumonia Lobar 5, Syphilis 5, Influenza 3, Diphtheria 1, Lethargic Encephalitis 1, Scarlet Fever 1, Whooping Cough 1, Myocoses 1. Other deaths under 1 year 17. Other deaths over 1 year 189. Stillbirths 13. Total 293.

RURAL — Cancer 29, Tuberculosis 7, Influenza 4, Pneumonia Lobar 3, Pneumonia (other forms) 3, Lethargic Encephalitis 1, Syphilis 1, Whooping Cough 1, Dysentery 1. Other deaths under 1 year 10. Other deaths over 1 year 136. Stillbirths 8. Total 204.

INDIANS — Tuberculosis 14, Influenza 4, Whooping Cough 2, Cancer 1, Pneumonia (other forms) 1. Other deaths under 1 year 4. Other deaths over 1 year 8. Stillbirths 0. Total 34.

NOTE — Two deaths from Tuberculosis and one death over 1 year were whites living on Indian Reserves.

DISEASE	*737,935 Manitoba Dec. 5-31,'43	*3,824,734 Ontario Dec. 5-Jan. 1,'44	*905,974 Saskatchewan Dec. 5-Jan. 1,'44	*2,972,300 Minnesota Dec. 5-Jan. 1,'44	*641,935 North Dakota Dec. 5-Jan. 1,'44
Actinomycosis	----	1	----	----	1
Anterior Polio.	----	1	10	----	2
Meningococcal Meningitis	1	18	2	15	4
Chickenpox	343	1548	341	----	9
Diphtheria	19	8	6	34	9
Erysipelas	6	8	----	----	1
Influenza	120	1965	----	615	7511
Measles	30	807	84	1696	1103
German Measles	----	42	46	----	----
Mumps	177	493	43	----	3
Pneumonia, Lobar	11	----	----	----	----
Puerperal Fever	1	----	----	----	----
Scarlet Fever	204	544	94	411	46
Septic Sore Throat	7	2	----	----	----
Tuberculosis	33	188	8	4	13
Typhoid Fever	1	----	1	----	1
Uudulant Fever	1	3	----	12	----
Whooping Cough	39	323	66	101	41
Amoebic Dysentery	----	----	----	12	----
Baccilary Dysentery	----	----	2	----	----
Diphtheria Carriers	4	----	2	----	----
Gonorrhoea	112	441	----	----	10
Syphilis	45	430	----	----	24

The Dominion Conference on the Management of the Possible Nation-Wide Epidemics. Ottawa, December 3rd and 4th, 1943

By Dr. H. M. Speechly, Chairman of the Manitoba Epidemic Committee

This was held in the Library of the Daly Building under the chairmanship of Dr. Leggett of Ottawa. It was shrouded in secrecy, as the Press had no representative, and perhaps because it was overshadowed by the V. D. Conference which immediately followed it. This obscurity had no other apparent reason. Actually, some 44 representative men and women had been invited but for various valid reasons not more than about 35 were present. Among those invited were the chairmen of the Epidemic Committees of the nine Provinces, two of whom were absent. At the instance of the Canadian Government the Canadian Medical Association early in the year had asked the nine Branches of the Association to appoint their own Committees. Accordingly the Manitoba Medical Association last January asked the present writer to take the chair of a good Committee of medical and lay personnel to study the method of tackling this matter. By the end of May the Man. Committee had produced a concise and practical Report which would enable this Province to handle any such epidemic as, for instance, the 1918 Influenza epidemic, with a definitely thought-out plan. Somewhat mysteriously, this Report was not even considered by the Man. Med. Association before it was delivered at Ottawa. There, however, it was included in the programme.

The Conference opened with a few words of welcome from Dr. R. E. Wodehouse, representing the Dominion Minister of Pensions and National Health. Dr. Sclater Lewis, President of the Canadian Medical Association, also spoke and frequently afterwards added much to the geniality of discussion. Then followed some excellent papers by Dr. J. J. Heagerty on the Influenza Epidemic of 1918; by Dr. C. P. Brown on the Prevention of Entrance of Disease into Canada during Peace and War; by Dr. G. D. W. Cameron on the Probability of Entrance of Tropical and other Diseases and their control; and by Brigadier J. C. Meakins on a Survey of some Diseases in the Western Provinces. Next came the turn of the Provincial chairmen. Dr. A. R. Foley of Quebec gave a paper on the general principles of managing Epidemic disease, but Manitoba's presentation of a complete plan for setting in motion all medical, nursing and lay agencies to cope with an Epidemic was the only offering of that type presented at the Conference. It is no exaggeration to say it was very favourably received and frequently alluded to in the discussions that followed. Amongst the laymen who made interesting contributions to the discussions were Mr. P. J. Brady of the Dominion Bureau of Statistics and Mr. Arthur Hemming, Associate Secretary of the Trades and Labour Congress of Canada, the former presenting a comprehensive statistical record of Hospital facilities throughout the Dominion. and the latter stressing the interest of Labour in this whole question with the suggestion that a Labour representative might well be included on the Manitoba Committee. Surgeon-Captain McCallum discussed the difficulties existing between the Provincial Colleges of Physicians and Surgeons and the permission needed to be given to Naval and Military surgeons allowing them to render medical aid in areas depleted of civil doctors. He was hopeful that something in this direction might be done.

There were ten able women representatives of such organizations as the Red Cross Society, St. John Ambulance, Canadian Nursing Association, the Nursing Faculty of the University of Ottawa, the Victorian Order of Nurses. the Salvation Army, the Canadian Welfare Council, the National Council of Women, La Federation des Femmes, Canadiennes Francaises, the Catholic Women's League and the Federate Women's Institutes of Canada. Amongst other valu able statements those made by Mrs. Young that th Red Cross stands ready for all emergencies; by Mis Hall that the V.O.N. was prepared to stretch it organization to the limits to organize Group Aides by Mrs. Edgar Hardy that the National Council o Women deprecated the apparent pessimism of me when the women were ready to do their part; b Miss Fenton of the St. John Ambulance Associatio that underlying all professional endeavour there wa danger of shortage of orderlies, domestic and kitche help; by Mrs. Rebecca West of the W.V.S. that a goo name to call those who though unqualified for nurs ing services could housekeep would be "Home minders"—all these added much to the interest o the general discussion. Incidentally the W.V.S. o Manitoba came in for warm praise.

Dr. P. E. Moore of the Indian Affairs Branch note with pleasure that the Manitoba Committee had representative of his Branch, Mr. A. G. Hamilton among its members, and urged that in view of th susceptibility of our Indian brethren to epidemic dis ease due consideration should be given to the Indiar communities all over Canada.

A comprehensive resolution was passed unani mously recommending "thorough organization o Medical, Nursing and Hospital personnel, Nursing Aides, clerical assistants, industrial personnel; and o professional, lay, religious and welfare bodies includ ing Service Clubs, all working with and complement ary to the Departments of Health of the variou Governments." Manitoba as shown by our Repor has already done this. In addition, certain othe resolutions added by the Resolutions Committee were passed as follows:

(1) "That temporary provisions should be mad by the proper Provincial bodies whereby the presen Provincial barriers against the treatment of civilia cases by Medical Officers of the Armed Forces unde certain emergencies may be suitably modified."

(2) "Whereas the C.M.A. views with satisfactio the excellent results obtained by the use of immuni zation against communicable diseases by all Depart ments of Health; and, whereas War-time living con ditions have increased the hazard of communicable diseases. therefore we recommend the inclusion and even wider use of such measures."

(3) "Whereas in times of such an epidemic as that of Influenza pregnant women are liable to be affected severely, the C.M.A. Committee on Epidemics recommends that the Advisory Committee on Maternal Hygiene to the Department of Pensions and National Health establish standard procedures for the management of such cases and that these procedures be brought to the attention of all practising physicians."

The last resolution was stimulated by the statement of Commander Philpott of the Naval and Maternity Hospital in Montreal, that in the Maternity Hospital all maternity cases with a temperature of 100° F. were at once placed in isolation.

As to possible epidemics, plague, tularaemia, and Rocky Mountain Spotted fever were considered unlikely. Nor is it likely that malaria, yellow fever, typhus fever, or cholera will become epidemic in Canada. Smallpox and typhoid might become epidemic if our hygienic precautions were to break down or be neglected. It is not expected that our Health services will break down, but nevertheless vigilance is continually required all over the Dominion.